



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/571,990	03/15/2006	Shuntaro Ibuki	1019519-000506	5528

21839 7590 01/22/2010  
BUCHANAN, INGERSOLL & ROONEY PC  
POST OFFICE BOX 1404  
ALEXANDRIA, VA 22313-1404

EXAMINER
----------

MILLER, MICHAEL G

ART UNIT	PAPER NUMBER
----------	--------------

1792

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

01/22/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/571,990	<b>Applicant(s)</b> IBUKI, SHUNTARO	
	<b>Examiner</b> MICHAEL G. MILLER	<b>Art Unit</b> 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 1-18 and 20-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19, 27-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Examiner notes the amendment filed 27 OCT 2009. As a result of the amendment, Claim 19 is amended and Claims 27-29 are new. Claims 1-18 and 20-26 stand withdrawn.

### ***Response to Arguments***

2. Applicant's arguments, see Remarks, filed 27 OCT, with respect to the rejection(s) of claim(s) 19 under 35 U.S.C. 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Anderson et al. and Kitano et al. (JP 2003-020303, hereinafter '303, machine translation, original document and STN summary attached). Applicant argues that Anderson et al does not teach a chemical of the family claimed in Claim 19 as amended, and Examiner agrees..

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 1792

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 19 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al (U.S. PGPub 2003/0072943), hereinafter '943, in view of '303.

7. Claim 19 – '943 teaches a method for producing an optical functional film comprising at least a first functional layer and a second functional layer (Abstract, PG 0058), which are adjacently formed in this order on a transparent support (PG 0063, polypropylene is a clear elastomer), wherein a coating composition for forming the first functional layer (PG 0039) contains a fluoroaliphatic group-containing copolymer (PG 0041 teaches polysiloxane for use in the system and PG 0045 teaches fluoroaliphatic polymeric esters for use as reactive surface agents in the system and teaches a combination with polysiloxanes) which has a polymerization unit derived from a fluoroaliphatic group-containing monomer (PG 0045), the fluoroaliphatic group containing copolymer is localized on a surface of the first functional layer when the

Art Unit: 1792

coating composition for forming the first functional layer is formed (PG 0053 teaches that a solubilization interface zone occurs between the first and second layers where components of both will dissolve into each other; homogeneously mixed solutions will have uniform distribution, meaning that there will be fluoroaliphatic material at the interface), and the fluoroaliphatic group-containing copolymer dissolves out into a coating composition for forming the second functional layer when the second functional layer is coated (PG 0053). PG 0180 teaches that both layers may be relatively transparent. '943 does not teach a fluoroaliphatic group-containing monomer of the type claimed, nor does it teach a specific copolymer ratio greater than 10%. It is known in the art that the amount and type of fluorine-containing surface active agent in the system is a result effective variable with regards to wetting properties (solid surface tension) of the final deposited parting layer (PG 0042), which enhances the adhesion of the ensuing polymeric layer. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to adjust the concentration of the fluorine-containing monomer, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). '303 teaches the use of an amphiphilic fluoropolymer ester (as discussed in '943 PG 0045) to form an optical antireflective film on a substrate (PG 0002 and 0014). Said amphiphilic ester comprises a monomer of the form required in Claim 19 (STN documentation, page 62; In this case R1 is hydrogen, X is oxygen, m is 1, n is 3 and Rf is CF<sub>2</sub>H) and is being used to make a functional antireflective film. Therefore, it would have been obvious to a person having

Art Unit: 1792

ordinary skill in the art at the time the invention was made to have used the chemical of '303 in the teaching of '943, as '943 wants to form optical films using amphiphilic fluoropolymers and '303 teaches a method of forming optical films using amphiphilic fluoropolymers.

8. Claim 27 – The chemical taught in '303 meets the formula of Claim 27 (R13 is hydrogen, Y is oxygen, and R14 is a 5-carbon linear alkyl group with fluorosubstitution (allowed, as substitutions are derivatives of base structures).

9. Claim 28 – Rejected as Claim 19.

10. Claim 29 – Rejected as Claim 29, as the fluorine content is a result-effective variable as discussed above.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 1792

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL G. MILLER whose telephone number is (571)270-1861. The examiner can normally be reached on M-F 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Cleveland can be reached on (571) 272-1418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael G. Miller/  
Examiner, Art Unit 1792

/Michael Cleveland/  
Supervisory Patent Examiner, Art Unit 1792